

REMARKS

Claims 1-2 and 5-6 are pending and claims 3-4 are canceled without prejudice to or disclaimer of the subject matter contained therein. By this Amendment, claims 1 and 5 are amended. No new matter has been added.

Support for the amendments to claims 1 and 5 is found, for example, at Fig. 2 and at page 9, lines 8-13 and page 10, lines 16-21.

The Office Action rejects claims 1, 2, 5 and 6 under 35 U.S.C. §103(a) over Hara (U.S. Patent No. 5,648,276) in view of Babayan (U.S. Patent Publication No. 2002/0129902 A1). The rejection is respectfully traversed.

In particular, neither Hara nor Babayan, discloses or suggests a lower plate further including a plurality of diffusion holes separate from introduction holes and a material gas is directly supplied into a film deposition chamber through the plurality of diffusion holes to react with radicals supplied through the introduction holes in the film deposition chamber, as recited in independent claim 1, and similarly in independent claim 5.

The Office Action at page 2 associates Hara's mesh electrode (ME) with the claimed lower plate. Hara, as shown in Fig. 3, does not disclose nor suggest SiH₄ gas flowing through a lower mesh electrode portion flows through holes that are separate from holes that pass radicals through the mesh electrode. In fact, nowhere does Hara disclose or even suggest that the mesh electrode only passes radicals of the generated plasma (PL) to the CVD chamber.

The Office Action at page 3 admits that Hara does not disclose or suggest that the mesh electrode is designed to pass only radicals to the CVD chamber. However, the Office Action asserts that Babayan discloses this feature. Applicants respectfully submit that Babayan also does not disclose or suggest that a lower plate further includes a plurality of

diffusion holes separate from introduction holes and a material gas is directly supplied into a film deposition chamber through the plurality of diffusion holes.


Babayan, as shown in Fig. 1, discloses a single tube 32 that receives a process gas into a plasma device. The received process gas is generated into plasma between an upper conductive electrode 16 and a lower conductive electrode 14. Although Babayan at paragraph [0039] discloses that only neutral reactive species [of the plasma] makes contact with a substrate 24, nowhere does Babayan disclose or suggest that material gas such as SiH_4 gas is introduced through the lower electrode 14 to the space between the lower electrode 14 and the substrate 24. Thus, Babayan can not disclose or suggest that a lower plate further includes a plurality of diffusion holes separate from introduction holes and a material gas is directly supplied into a film deposition chamber through the plurality of diffusion holes. As discussed above, Hara does not disclose or suggest this feature either. Thus, even if Babayan and Hara were to be combined, the combination does not render obvious the above noted feature of claim 1, and similarly in claim 5.

Therefore, claims 1 and 5 are patentable over the applied references. Claims 2 and 6, which depend from claim 1, are likewise patentable over the applied references for at least the reasons discussed above and for the additional features they recite.

For the reasons stated above, Applicants submit that this Application is in condition for allowance. Favorable reconsideration and prompt allowance is respectfully requested.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,


James A. Oliff
Registration No. 27,075

Yong S. Choi
Registration No. 43,324

JAO:YSC/eks

Attachment:
Request for Continued Examination

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OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

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